

Abstract

A container comprises a container body for containing contents to be heated or cooled, a thermic module at one end of the body, and a closure at the other end of the body.

Within the thermic module, an internal exothermic (or, alternatively, endothermic) chemical reaction is initiated to heat its contents when a user actuates the thermic module. The thermic module includes a heat exchanger portion extending proximally into the container and a thermic module cap distal to the heat exchanger portion. The heat exchanger portion has a pleated wall to improve the heat transfer to the contents of the container. The container includes a rotatable cover adhered to the container end over the closure with heat-sensitive adhesive that prevents a user from accessing the contents until a certain temperature is reached. The container further includes a full panel pull-off which covers and protects the actuator from being actuated until the pull-off lid is removed from the full panel pull-off. The thermic module may also include a filter disposed in interfering relation with the thermic module vents, including a portion between the inner and outer actuator buttons, to block egress of any particles of the solid reactant or the reaction product.